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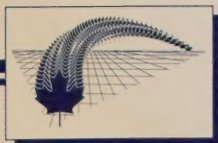
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# *Accessing Continental Rail Networks*

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*A Staff Report to the  
National Transportation Act  
Review Commission*

*May 1992*



Canada



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# ACCESSING CONTINENTAL RAIL NETWORKS

## *EXECUTIVE SUMMARY*

This analysis by staff of the National Transportation Agency highlights the necessity for selected Canadian industries to access continental rail networks for the movement of their goods to U.S. and offshore world markets. The report outlines some of the reasons such access is desired by Canadian shippers, as well as how and where continental rail systems are primarily used. The report also outlines some of the initiatives Canadian railways have instituted to meet the needs of shippers to access continental rail networks.

An earlier Agency staff report looked at the needs of Canadian shippers and travellers to access continental transportation systems in all modes. That report, entitled "An Integrated and Competitive Transportation System: Meeting Shipper and Traveller Needs", discussed some of the continental rail needs of shippers. This analysis examines in greater detail the needs of Canadian shippers to access continental rail systems.

The increasing use of continental rail networks by Canadian shippers is a reflection of their need to use the most effective rail route for their traffic irrespective of national borders, ports or carriers which have traditionally played a major role in their transportation decisions.

Commodities exported from Canada are, to a large degree, resource products and must travel long distances from the inland location of Canadian mines, plants and mills to the U.S. and export positions at coastal ports. Inland rail rates and services provided by railways can directly affect the ability of shippers to compete in world markets.

Shippers are seeking access to new competitive services in a variety of forms: the use of a different mode of transport, the use of a new intermodal routing, and new routings within a mode, often with a different carrier. Some shippers have considered using routings that access U.S. ports that offer competitive options for exporting their products. U.S. railroads such as Burlington Northern provide western Canada shippers with competitive options on the movement of products to the important U.S. market. Reload centres developed for the forest industry and inland ports such as one recently developed at Shelby, Montana, also provide Canadian shippers with increased access to continental transportation networks.

Canadian producers and consumers who ship and receive their traffic in containers appear to place particular importance on access to continental rail networks. A significant portion of the containerized cargo originating in destined to Canada is routed over the lines of U.S. railroads and through U.S. ports. Similarly, Canadian ports receive substantial U.S. container traffic.

## **ACCESSING CONTINENTAL RAIL NETWORKS**

CN and CP Rail are striving to meet the needs of shippers through the development of new and innovative rail systems. These railways have recently restructured their North American rail operations. In addition, fast intermodal trains, new intermodal terminals and double-stack services have been developed and instituted.



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**INTRODUCTION**

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Paragraph 266(3)(a) of the *National Transportation Act, 1987 (NTA, 1987)* states that the review is specifically to consider the Act's effect on achieving a transportation network "responsive to the needs of shippers ...". This analysis by staff of the National Transportation Agency identifies changing rail shipper needs in Canada. It outlines the extent to which shippers, in certain industries, are seeking out the most efficient rail routes and services to move their products to U.S. and offshore markets and the use by shippers of what are herein termed "continental rail networks" to access those markets. The analysis also looks at how Canadian railways have responded to the changing needs of shippers.

An earlier Agency staff report looked at the needs of Canadian shippers and travellers to access continental transportation systems in all modes. That report, entitled "An Integrated and Competitive Transportation System: Meeting Shipper and Traveller Needs", discussed some of the continental rail needs of shippers. This analysis examines in greater detail the needs of Canadian shippers to access continental rail systems.

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**CONTINENTAL RAIL NETWORKS**

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Transportation networks provide for shippers' access to markets. "Continental rail networks", for the purpose of this analysis, are networks which have rail links in Canada and the U.S.

The increasing use of continental rail networks by Canadian shippers is a reflection of their need to use the most effective rail route for their traffic irrespective of national borders, ports or carriers that have traditionally played a major role in their transportation decisions.

**The Need For Cost Effective Transportation Networks**

Canadian shippers are currently facing strong competition from U.S. and offshore producers in the sale of their products in world markets. Commodities exported from Canada are, to a large degree, resource products and must generally travel longer distances from the

## ACCESSING CONTINENTAL RAIL NETWORKS

inland location of Canadian mines, plants and mills to the U.S. and export positions at coastal ports.

Much of our export traffic is also low in unit value and high in unit weight, a combination which makes transportation of critical importance in the penetration of markets. A 1991 Transport Canada study estimates that in 1986, total direct and indirect transportation costs accounted for 39 percent of the delivery price of coal, 17 percent for lumber and timber, and 18 percent for industrial chemicals. These percentages all rose when only export sales were examined.

Inland rail costs often account for the largest component of the total transportation cost. The rates and services provided by railways can therefore affect the ability of the shipper to compete in world markets.

For many shippers located in western Canada, northern regions and in the Atlantic Provinces, competitive modal options do not always exist because they are located on the line of a single railway and at a considerable distance from a connection with a second competitive carrier. For these shippers, the combination of terrain, distance, commodity and modal captivity can also affect their ability to compete.

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### ACCESS: THE NEW COMPETITIVE REALITY

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In response to the competitive pressures placed upon them, Canadian shippers are opting for the most cost-effective routing for their products. Shippers are seeking access to new competitive services in a variety of forms: the use of a different mode of transport, the use of a new intermodal routing, and new routings within a mode, often with a different carrier.

A stated goal of the *NTA, 1987* is to encourage competition. Competitive access provisions, including confidential contracting, were introduced to enhance competition in rail markets.

Since 1988, the rail competitive access provisions have let shippers get "competitive service" even if they can only use one railway. This has been especially important to resource-based shippers with export markets who have used access to U.S. railroad rates and services as negotiating tools to bargain for better deals.



These deals with U.S. and Canadian railways have been used to reach U.S. inland markets and sometimes even off-shore markets through U.S. ports, continuing a trend that preceded the reforms set out in the *NTA, 1987*. A previous Agency staff paper on Rail Competitive Access examined this issue in greater detail.

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### CONTINENTAL RAIL NETWORKS: EMERGING TRENDS

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For some Canadian shippers, securing access to continental transportation networks has been necessitated by events linked to transportation issues. For others, such access provides competitive options to traditional Canadian rail routings.

The Canadian port and terminal system has, on occasion, been seen by some shippers as insufficiently responsive to their needs. Consequently, some shippers have reported that, in order to obtain the service, quality and efficiency needed to sell in their markets, they have considered using routings to U.S. ports because they offer more flexible labour practices, better infrastructure and faster shipping times.

Following are some examples of Canadian industries that have recently used or are considering using continental rail networks to better meet their shipping needs:

#### **The Potash Industry**

Several years ago, the need for additional potash storage and handling facilities at Vancouver was identified by Canadian potash producers. The forecast growth in sales and terminal congestion were the driving forces behind the expansion. A rather lengthy progression was begun through the various regulatory approval processes in Vancouver.

According to industry sources, the expansion project was approved after two years of delay. That delay resulted in over \$3.5 million in escalated capital costs - costs that will ultimately be passed on to customers. Since the expansion was envisaged, further pressures arose that led to trial shipments via CP Rail to Vancouver and Burlington Northern Railroad (BN) to Longview, Washington. The Longview terminal is an all-weather facility that can load potash in the rain at a low cost in a completely enclosed system that emits no dust. Industry officials state that there are no labour jurisdictional problems at Longview regarding who removes and installs hatch covers. Some would also argue that labour relations in general are less confrontational

## ACCESSING CONTINENTAL RAIL NETWORKS

in contrast with the perceived labour relations at Vancouver. Rain delays and lost efficiency at Vancouver result in increased costs that are passed on to customers. This can result in lost sales and fewer tonnes handled through Vancouver.

Canadian potash producers believe that the U.S. option is an attractive one. In fact, due to the delay in proceeding with the Vancouver expansion, negotiations with the Longview terminal resulted in about 100,000 tonnes moving through Longview in 1991.

With regard to the U.S. market, plans were also announced in August, 1991 for a \$3-million program that would enable CP Rail to move potash from Saskatchewan over a more direct rail route to markets in the United States through CP's North Portal, Saskatchewan gateway.

"This will help CP Rail and its customers to get their products to U.S. Midwest markets more efficiently", according to the CP Rail announcement. The greater efficiency of a more direct routing for the U.S.-bound potash became feasible when CP Rail acquired full ownership of the Soo Line Railroad, with connections at both North Portal and Emerson, Manitoba, in 1990.

### The Sulphur Industry

Canadian sulphur producers believe that they face a competitive disadvantage relative to both U.S. and offshore producers. Inland rail and port terminal costs are, according to industry sources, higher in Canada.

According to industry sources, labour practices at Canada's west coast port terminals have, on occasion, also limited the offshore export of sulphur. Recently, ships at Vancouver were delayed for the loading of sulphur and charges in excess of \$500,000 were incurred. Additional rail charges were also incurred because loaded trains of sulphur had to sit idle at the terminal awaiting a return to work by the long-shoremen. An additional 8 to 9 trainloads of sulphur were not shipped from Alberta because the initial loaded trains were not able to be unloaded at the port terminal. As a result of continued difficulties, sulphur producers are seriously considering using U.S. west coast ports to meet future needs.

### The Methanol Industry

Canadian methanol producers have also stated that they face a competitive disadvantage in the movement of their traffic to both U.S. and offshore markets. Both inland rail and port terminal costs are, according to industry sources, higher in Canada.



Port terminal charges can add up to a significant portion of the landed transportation cost for movements to offshore markets. High terminal charges (estimated by industry officials at 6 cents a U.S. gallon at Vancouver compared to 2 cents at Portland, Oregon ), contributed to the decision of an individual producer in 1988 to move methanol over an all-rail route from Alberta to the southern U.S. market. Prior to 1988, the traffic in question was moved to Vancouver by rail where it was subsequently loaded onto ships for movement to the U.S.

Ports in the state of Washington are increasingly attracting the attention of Canadian methanol producers. The U.S. ports are served directly by the Burlington Northern Railroad which can route traffic either from Vancouver or at inland border gateways with Canadian railways.

### Forest Products

For many producers of Canadian forest products, markets are distant and transportation plays a vital role in determining the competitiveness of the industry in the marketplace. British Columbia producers reflect this importance. Approximately half of total B.C. lumber production is sold in the U.S. Northeast and South Atlantic market. Because of the long distance involved, rail remains the dominant mode of transportation and transportation costs are a critical consideration in penetrating these markets.

While the majority of mills in B.C. are located on the line of a single railway, the coastal mills have access to ocean vessels and barges, in addition to rail, for shipment to distant markets. Similarly, many interior mills have competitive options due to the availability of trucks and the proximity of competing transcontinental railroads.

B.C. forest producers can move product by truck from mill site to reload centres located on BN, Union Pacific (UP) and CP Rail. One of the most important advantages of having these options is that it enables B.C. producers to access more U.S. markets. In addition, it permits producers to take advantage of lower rates and/or better service offered by competing railroads. It should be noted, however, that this competitive option is limited by the availability of trucks in northern regions and the cost of hauling forest products long distances to reloads. Consequently the competitive access provisions of the *NTA, 1987* continue to play an important role for remote northern shippers in negotiations with rail carriers.

## ACCESSING CONTINENTAL RAIL NETWORKS

### Coal

Three coal terminals, Westshore Terminals Ltd. (located at Roberts Bank 32 kilometres south of Vancouver), Neptune Terminals (located in North Vancouver), and Ridley Terminals Inc. (located in Prince Rupert), service the coal mines operating in British Columbia and Alberta.

All coal mines operating in B.C. and Alberta are captive to a single railway and are totally dependent on that railway for both rates and service. Trucking coal is not an option, given the volumes and distances involved in its movement to tidewater.

Some coal industry officials believe that neither CN nor CP Rail wish to compete with each other for access to mines by using the other carrier's lines. Nevertheless, although such competitive access could be attained through the activation of the competitive access provisions of the *NTA, 1987*, no applications for such access have been filed by coal shippers since the passage of the Act in 1988. Representatives of coal export terminals in the Vancouver area are currently investigating the feasibility of constructing expanded port facilities on the northwest U.S. coast.

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### RESPONSE OF U.S. RAILROADS TO NEEDS OF CANADIAN SHIPPERS

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For many western Canada rail shippers, BN is the only major U.S. railroad that can offer competitive rates, routes and services for their traffic. BN competes with both CN and CP Rail as well as BC Rail particularly for movements of forest products into the important U.S. market.

BN operates directly into both Vancouver and Winnipeg. It can also interchange traffic with CP Rail at the Coutts/Sweetgrass interchange on the Alberta/Montana border and with CN at Northgate, Saskatchewan.

Traffic interchanged between CN/CP Rail and BN has increased from just over 3 million tons in 1985 to almost four and a half million tons in 1991 (See Appendix 2 for details).

Traffic moved southbound from CN and CP Rail lines to BN has historically accounted for the majority of this traffic, increasing from 2.3 million tons in 1985 to 3.3 million tons in 1991. Although there was an overall increase in southbound flows to BN over the period 1985-91,



southbound traffic interchanged with BN actually declined in the period 1988-1990, immediately following the passage of the *NTA, 1987*.

Traffic moved northbound into Canada from BN has remained relatively stable over the 1985-1991 period. Northbound tonnages in the one million range have, however, increased marginally since the passage of the *NTA, 1987*.

Despite the increased total traffic flows between BN and CN and CP Rail, there has been only limited use of the competitive access provisions of the *NTA, 1987* to gain access to BN.

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### THE IMPORTANCE OF INLAND PORTS IN ACCESSING CONTINENTAL RAIL NETWORKS

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For many western Canadian shippers, accessing continental rail networks is being made easier by the establishment of reload centres, as noted in the discussion of B.C. forest products, as well as inland ports located at or near Canada/U.S. rail gateways.

#### Inland Ports

Shelby, Montana, just south of the Alberta/Montana border, recently completed the construction of inland port facilities to allow the loading of Alberta sulphur, cement, fertilizer and other commodities onto BN rail line which directly connects to ports on the U.S. northwest coast.

Under the terms of a trucking agreement signed in July, 1991 between the State of Montana and the Province of Alberta, Canadian trucks operating over the 37 miles of highway between the border and Shelby are exempted from the lower load weight restrictions normally imposed on truckers in the State. In return for the exemption, Alberta ended its threat to ban certain configurations of U.S. trucks on its highways.

The Shelby facility has received financing from the Port of Tacoma. Container volumes handled at Tacoma have grown dramatically from about 150,000 TEU's (twenty-foot equivalent length) in 1984 to over one million TEU's in 1991. The Port also owns and operates two large intermodal yards where containers can be transferred from ship to truck to rail. BN and UP provide direct rail service to the terminals.



## ACCESSING CONTINENTAL RAIL NETWORKS

Tacoma, however, shares a competitive disadvantage similar to other west coast North American ports. Many of the inbound loaded containers received at the Port return empty once delivered to U.S. midwest consumers.

One aim of the Shelby facility to create a ready supply of empty containers to shippers in the Prairie provinces, where containers are in short supply, and to attract loaded container backhaul traffic to Tacoma.

Should Shelby succeed, Canadian shippers in the Prairie provinces may have a steady supply of empty containers to load, and ship westbound. The empty containers can be trucked from Shelby to where they can be loaded on the Prairies, then trucked back to Shelby and carried by BN to U.S. northwest ports for export.

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### THE USE OF CONTINENTAL RAIL NETWORKS IN THE CONTAINER TRADE

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Access to continental rail networks is especially important for Canadian producers and consumers who ship or receive their traffic in containers.

In an era of globalization of markets, Canada and the U.S. are essentially considered as a single market as far as container traffic is concerned. Over the past decade, containers moving through Canadian ports have almost doubled from 800,000 TEU's in 1981 to about 1.5 million TEU's in 1991. However, this represents less than 10 percent of the total North American container trade.

Canadian and American cargo has been routed through the other country's ports since the early years of containerization. U.S. container traffic imported and exported through Canadian ports is in the order of 250,000 to 300,000 TEU's annually.

A significant portion of the containerized cargo which is originated or destined in Canada is routed to and from Canada over the lines of U.S. railroads through U.S. ports. The importance of U.S. ports and railroads in the container sector can be attributed to a combination of factors including global shipping line schedules, port location, port economies of scale and availability of inland double-stack rail services.

For Canadian ports and railways, the transborder movement of containerized cargo and the resulting competition with U.S. ports for this business constitutes a challenge. Canadian ports and railways want to secure a larger share of the North American container trade. Canadian ports are striving to develop new systems which will reroute containers currently moving through American ports to Canadian ports. Canadian railways are developing more efficient inland transportation systems in their efforts to secure a larger share of this important business and to better serve Canadian and U.S. markets. Joint efforts such as these confirm that the needs of shippers for access to continental transportation networks are not limited to competition between either railways or ports but rather are geared to total "integrated" transportation systems.

The challenges faced by Canada's ports and railways differ on the east and west coasts.

### Canada's East Coast Ports

#### Halifax

Among Canada's major ports, the Port of Halifax has experienced the most rapid growth in its container traffic up to 1990. Halifax benefits from its strategic location 31 kilometres off the Great Circle shipping route linking Europe and the North American east coast.

Halifax is often double called, as the first port-of-call westbound and the last port-of-call eastbound. Container traffic at the Port reached almost 450,000 TEU's in 1990 then declined to 357,000 TEUs in 1991 largely attributable to the rationalization of services by shipping lines calling at the Port. About 80 percent of this traffic was originated or destined to Ontario and Quebec. About 7 percent moved to and from the U.S. CN, which is the only railway providing service to the Port, provides direct service to these markets.

Halifax is faced with an increasing level of competition from east coast U.S. ports, most notably New York. Both the Port of New York and Conrail offer rate incentives directly targeted at containers currently moving into Canada. The Delaware and Hudson Railroad, recently purchased by CP Rail, is also offering similar incentives.

#### Montreal

Montreal, Canada's largest container port, is on the shortest, most direct shipping route between Europe and the industrial heartland of Canada and the U.S. It is Canada's largest container port. It has an estimated market share of 22 percent of the containerized cargo handled on the east coast of North America.

## ACCESSING CONTINENTAL RAIL NETWORKS

Container flows through the Port of Montreal are a good example of the use of continental transportation networks working to the advantage of Canadian ports and Canadian railways. Almost half of the 600,000 TEU's handled at the Port in 1991 originated or terminated in the U.S.

Aside from its inland advantage, the Port is also served by CN and CP Rail, which are able to directly serve major markets extending to Toronto, Detroit and Chicago in a straight line, in marked contrast to the meandering U.S. rail routes.

### Vancouver

Vancouver has experienced strong growth since the mid 1980's. In 1990, the Port of Vancouver handled 323,000 TEU's. In 1991, handlings increased to 384,000. Container volumes handled at the Port have continued to increase in 1992. Volumes are up a further 32.5 percent for the first quarter of 1992. These increases are largely the result of new and effective marketing and pricing programs which have recently been developed by the Vancouver Port Corporation. The Port has developed a new incentive pricing tariff for containers and has recently succeeded in attracting new shipping lines that are making Vancouver the first port of call on their transpacific routes to the west coast of North America.

In addition, double-stack container services offered by CN to eastern Canada have also contributed to the increased container handlings from the Port.

Much of the container traffic which could be routed through Vancouver is, however, still routed through the U.S. ports of Seattle and Tacoma. According to the 1991 Canada Ports Corporation study entitled "Towards A Canadian Intermodal System":

"An increasing amount of central Canadian containerized cargo is being diverted through U.S. west coast ports as a result of the cost and time savings achievable for these routes. The U.S. routing can be more competitive due to frequent, double-stack rail connections, made possible by higher traffic volumes and because a U.S. port is almost invariably the first stop inbound for container ships, thus reducing the transit time to the shipper on high-valued imports. It has been estimated that 70 percent of the potential central Canadian inbound container traffic from Asia which could go through the Port of Vancouver is currently routed via U.S. west coast ports"



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**RESPONSE OF CANADIAN RAILWAYS TO TRANSHIPMENT OF CONTAINERIZED CARGO TO U.S. PORTS**

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CN and CP Rail are working to develop continental rail networks which better serve the needs of Canadian and U.S. shippers and to capture a larger segment of the North American container trade. The railways have recently restructured their rail operations to better meet those needs.

**Restructuring of CP Rail Operations**

Shifts in global trading patterns are putting pressure on the Canadian transportation industry to improve its performance. Closer to home there is also the Canada-U.S. Free Trade Agreement. In a speech to the Intermodal Marketing Association & Intermodal Transport Association Conference in Vancouver on October 24, 1990, R.J. Ritchie, President, CP Rail stated:

"If it (Free Trade Agreement) lives up to our expectations, it will increase traffic flow between our two countries, creating a special need for more efficient transportation facilities. If you include the potential that a U.S.-Mexico-Canada trade pact entails, the challenges to intermodalism become evident."

Early in 1990, CP Ltd. acquired full majority ownership in the Soo Line Corp., a railway which connects the U.S. midwest with the Canadian Prairies. In 1991, CP Rail purchased the Delaware and Hudson Railway Co. linking Buffalo and Montreal with major east coast U.S. cities and ports. The three railways, CP Rail, Soo Line and the D&H have been integrated into a new transcontinental railway known as "CP Rail System".

The acquisition of the D&H and Soo Line gives CP Rail ownership or running rights on more than 11,000 kilometres of track in the midwest and northeastern U.S., the industrial and consuming heartland of the U.S. The D&H purchase also provides CP Rail with direct access to the major northeastern U.S. ports of New York and Philadelphia which are in competition with the ports of Montreal and Halifax.

Transportation industry analysts agree that the major implication of the purchase is that it transforms these U.S. ports into stronger competitors for Canadian domestic traffic usually routed through Halifax. Any traffic which CP Rail can attract to the U.S. ports served by the D&H and its connections will constitute new traffic and revenue for CP Rail gained from competing Canadian and U.S. railways.

**Restructuring Of CN Rail Operations**

CN has also restructured its rail operations in its efforts to develop continental systems which more effectively meet the needs of North American shippers.

In December, 1991, CN integrated the marketing and operational functions of CN and its three U.S. railroads - Grand Trunk Western, Duluth, Winnipeg and Pacific and Central Vermont - into a new company called "CN North America". Coupled with recent marketing alliances with three major U.S. railroads, the restructuring is designed to help CN expand its transborder freight business.

CN already handles about 400,000 carloads of transborder freight a year. The railway expects annual growth of 6.4 per cent for the next five years in its crossborder revenue.

**CP Rail Intermodal Initiatives**

According to CP Rail, "The major cause for our losses in intermodal freight was that the railway service just wasn't there. We didn't have a package to offer that was as flexible as truck or as good as truck."

CP Rail now runs fast intermodal trains between Montreal, Detroit, Chicago, Philadelphia, Toronto and Vancouver, connecting with a total of 30 intermodal terminals in Canada and the U.S. Many of these trains are made up of "spine cars" designed specifically to carry container merchandise in a manner which provides operational and economic benefits to shippers and at prices which are competitive with trucks.

CP Rail recently opened a new \$30 million terminal at Vaughan, near Toronto, as well as a new terminal in Detroit. CP Rail is also enlarging its tunnels in western Canada to enable it to handle double-stack container trains for imported goods moving from the west coast to central Canada markets.

The tunnel program, in conjunction with other marketing initiatives designed by the railway and the Port of Vancouver, will enable CP Rail to compete more effectively with U.S. railroads which are presently handling the bulk of this traffic from U.S. west coast ports.

### **CP Rail RoadRailer Service**

By combining the fuel efficiency of rail with the flexibility of trucks, CP Rail is hoping that its new RoadRailer service will prove to be a weapon in its effort to recapture traffic lost to trucks. RoadRailers are hybrid trailers that have both rubber tires and retractable or removable railway undercarriages and can operate on a highway or on railway trackage. CP Rail initiated the RoadRailer operation in mid-91 for the movement of automobile parts between Detroit and Toronto as an extension of the same service operated by the Norfolk Southern Railroad in the U.S. RoadRailer technology allows traffic to be moved at a lower cost to the shipper thereby enabling the railway to be highly competitive with trucks on shorthaul markets.

### **CN Intermodal Activities**

In June of 1991, CN launched a double-stack container service from Moncton to Montreal and Toronto. According to CN, double-stack container trains are three-and-a-half times as fuel-efficient as trucks. CN has spent about \$45 million on new equipment for the service linking central Canada with the Atlantic region. According to Ron Lawless, President and CEO, CN intends to "aggressively market the double-stack service and recapture some of the traffic lost to the long-haul trucking industry in recent years".

CN is also expanding its tunnels to accommodate the movement of double-stack container trains from Vancouver to eastern Canada and the United States. In addition, CN is building a \$155 million double-stack tunnel between Port Huron, Mich. and Sarnia that will give it a better strategic link to Chicago. The tunnel is to be opened by 1994. CN is spending an additional \$425 million to expand yards and purchase related intermodal equipment. John Sturgess, Chief Operating Officer for CN stated that "CN recognizes that if we want to compete effectively on transborder shipments, it's essential that we go double-stack."

### **CN Sprint and Laser Trains**

In an effort to capture a larger share of the trailer business hauled by truckers, CN recently introduced short, fast, intermodal "Sprint" trains between Montreal and Toronto. "Sprint" trains were made possible by an agreement between CN and the United Transportation Union, reached in mid-1991, to operate two-person train crews on this key Canadian route. The expected cost savings resulting from the smaller crews will, according to CN, enable CN to better compete for some 300,000 trailers per year that now move by highway in Ontario and Quebec. CN estimates that 33 percent of the traffic on "Sprint" trains has shifted from truck.



CN "Laser" trains are also providing truck-competitive service between Detroit, CN's major gateway connection to the U.S. market, and eastern Canada.

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**RAILWAY-SHIPPER PARTNERSHIPS**

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Partnerships, which work to the mutual advantage of both shippers and railways, are imperative to the timely and effective movement of goods from producer to consumer. Canadian railways are working hard to deliver both quality and service to satisfy the needs of Canadian shippers in the 1990's. Quality, especially, is increasingly playing a role.

Canadian railways play an important role in the total quality package for many industries. CN and CP Rail are placing increased emphasis on the quality of their rail service and have instituted quality programs so that they might better serve their customers. BC Rail, a provincially regulated railway, is also according considerable attention to the quality service needs of shippers, particularly in the important B.C. forest sector.



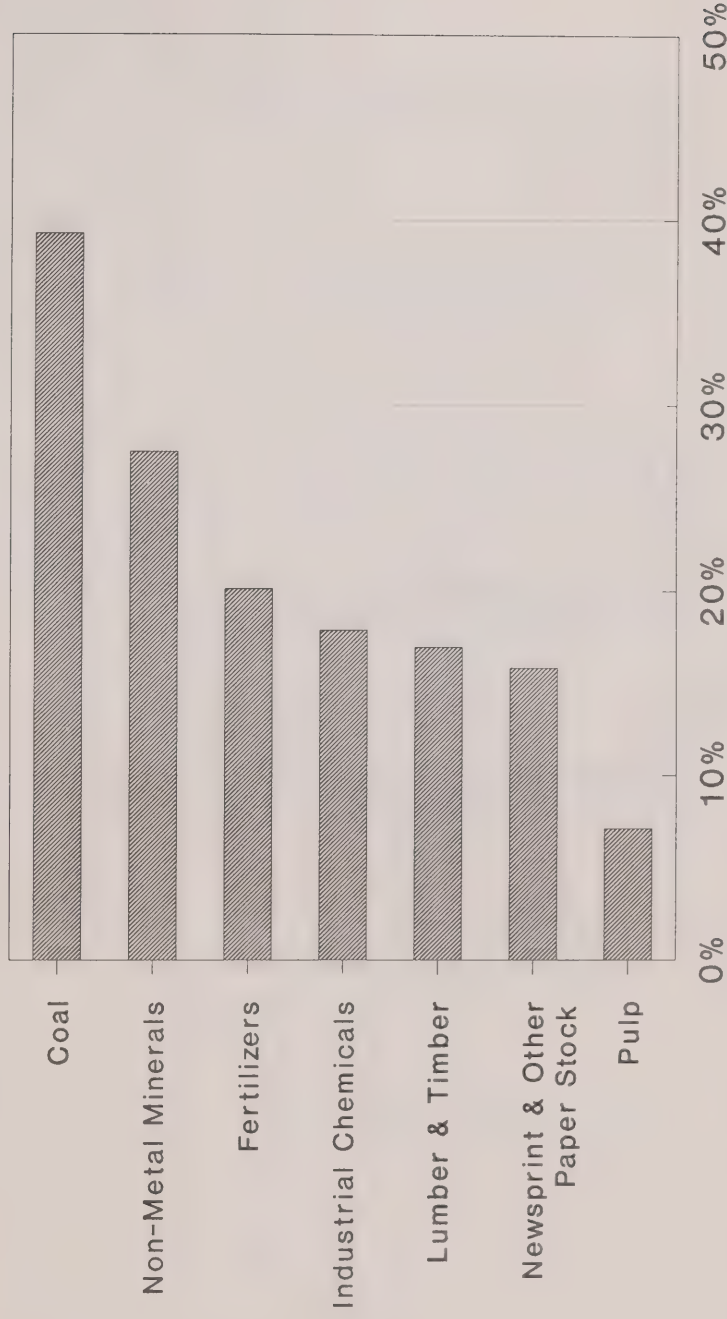
# Transportation Costs as a Proportion of Delivery Price, 1986

Top 15 out of 69* groups	Export Sales %	Domestic Sales %	Total Output %
Coal	44.82	11.83	39.25
Fertilizers	40.59	8.01	20.14
Forestry Products	29.62	11.58	12.18
Non-Metallic Minerals	29.39	25.60	27.52
Grains	27.82	12.24	18.89
Other Agricultural Products	21.08	12.40	13.26
Iron Ores & Concentrates	20.55	19.55	20.28
Industrial Chemicals	20.52	16.67	17.89
Lumber & Timber	17.56	15.45	16.97
Newsprint & Other Paper Stock	17.52	13.13	15.81
Feeds	16.45	7.54	8.26
Paper Products	14.00	8.04	8.58
Cement & Concrete Products	13.85	7.37	7.93
Other Petroleum & Coal Products	13.59	8.19	9.40
Sugar	10.26	3.69	5.40
<b>Selected Others</b>			
Iron & Steel Products	8.30	7.89	7.97
Pulp	7.47	5.35	7.13
Plastic Fabricated Products	6.05	3.23	3.71
Meat Products	4.92	3.79	3.92
Furniture & Fixtures	2.89	2.09	2.24
Motor Vehicles	2.04	1.05	1.93

\* - Items selected from 69 commodity groupings in Statistics Canada Input/Output tables.  
The top 15 were chosen based on the proportion of transportation expense in export delivery prices. Others were selected for comparative illustration.



# Transportation Costs for 7 Major Commodities as a Proportion of Price, 1986



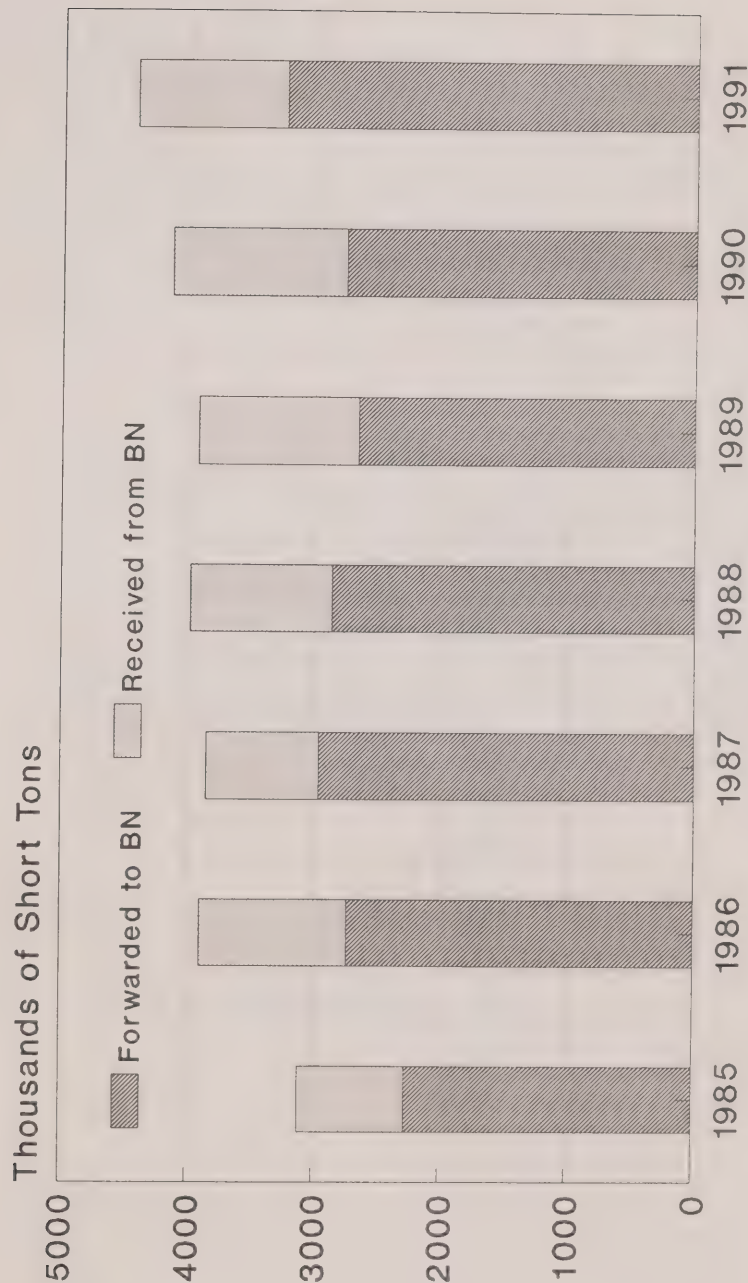
Comprehensive Review Staff Working Group  
National Transportation Agency of Canada

Source: Transport Canada, based on Statistics Canada I/O models

# CN/CP Traffic Interlined with Burlington Northern

Year	(000 Short Tons)		
	Forwarded to BN	Received from BN	Total
1985	2,273	843	3,116
1986	2,736	1,160	3,896
1987	2,961	887	3,848
1988	2,861	1,120	3,981
1989	2,660	1,264	3,924
1990	2,766	1,373	4,139
1991	3,247	1,173	4,420

# CN/CP Traffic Interlined with Burlington Northern



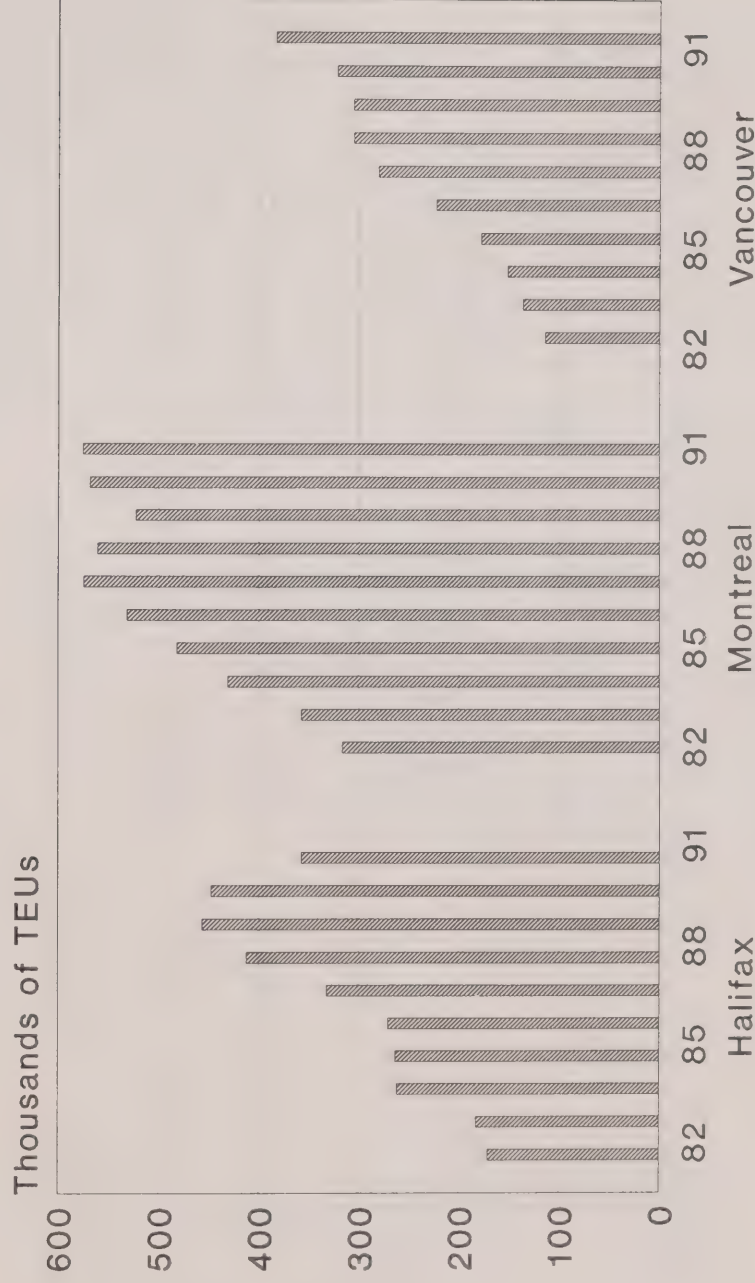
Comprehensive Review Staff Working Group  
National Transportation Agency of Canada  
Source: Agency statistics



# Containers Handled by 3 Major Canadian Terminals

Year	Twenty-foot Equivalent Units (TEU's)		
	Halifax	Montreal	Vancouver
1982	171,157	316,317	114,010
1983	182,620	357,503	136,178
1984	261,448	430,567	151,551
1985	263,059	481,525	178,175
1986	270,762	531,525	222,781
1987	331,766	574,522	280,777
1988	412,166	560,441	305,738
1989	456,331	522,451	305,688
1990	447,250	568,103	322,569
1991	357,276	575,554	383,563

# Containers Handled by 3 Major Canadian Terminals



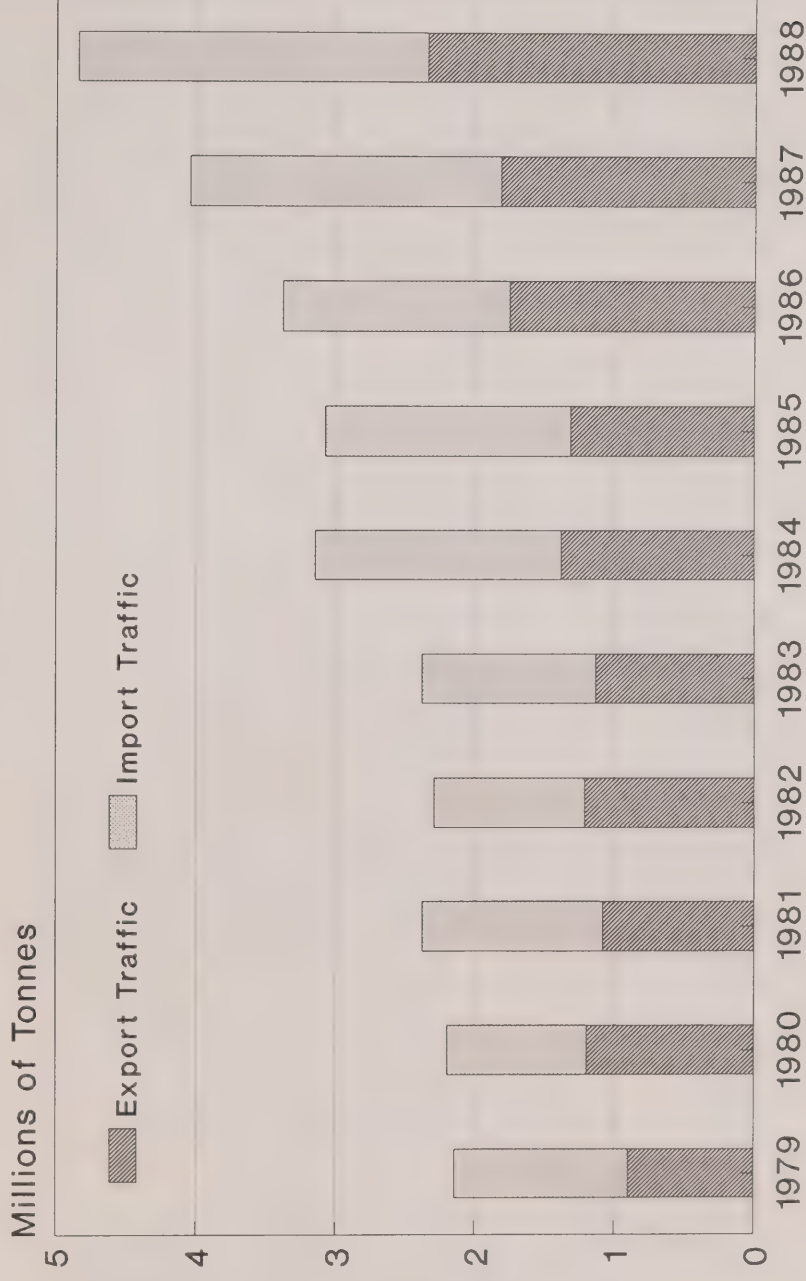
Comprehensive Review Staff Working Group  
 National Transportation Agency of Canada  
 Source: Canada Ports Corporation, Corporate Services

# U.S. Cargo Transshipped through Canadian Ports

Year	Export Traffic (000 tonnes)	Change %	Import Traffic (000 tonnes)	Change %	Total (000 tonnes)	Change %
1979	900.7		1,245.4		2,146.1	2.3
1980	1,198.2	33.0	997.6	-19.9	2,195.8	8.2
1981	1,081.1	-9.8	1,294.0	29.7	2,375.1	-3.6
1982	1,214.4	12.3	1,075.7	-16.9	2,290.1	3.9
1983	1,133.5	-6.7	1,245.7	15.8	2,379.2	32.4
1984	1,383.0	22.0	1,766.2	41.8	3,149.2	-2.3
1985	1,315.8	-4.9	1,761.8	-0.2	3,077.6	9.9
1986	1,758.1	33.6	1,624.2	-7.8	3,382.3	19.7
1987	1,821.7	3.6	2,225.6	37.0	4,047.3	19.6
1988	2,347.1	28.8	2,494.6	12.1	4,841.7	
1979-83 average	1,105.6		1,171.7		2,277.3	
1984-88 average	1,725.1	56.0	1,974.5	68.5	3,699.6	62.5



# U.S. Cargo Transshipped through Canadian Ports

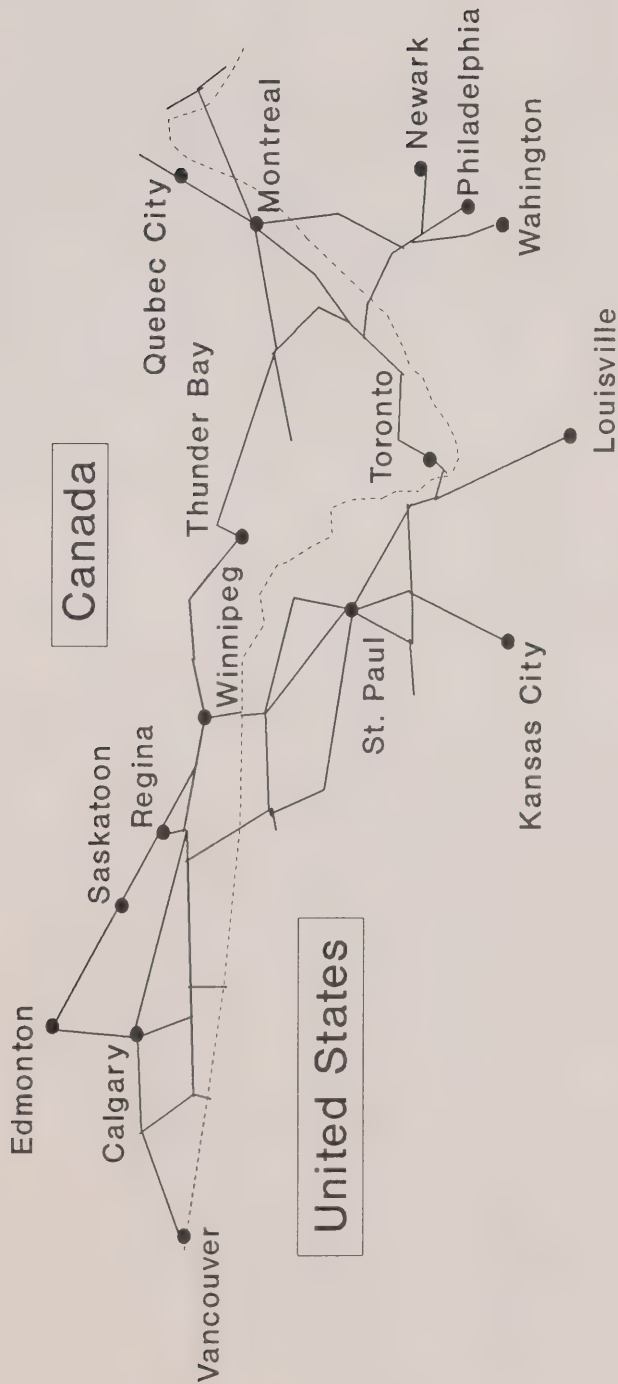


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 Source: Transport Canada

# Canadian Cargo Transshipped through U.S. Ports

Year	West Coast (000 tonnes)	Change 1984-88 %	East Coast (000 tonnes)	Change 1984-88 %	Total (000 tonnes)	Change 1984-88 %
Export Traffic	1984	310.6	363.0		673.6	
	1985	268.3	352.7		621.0	
	1986	666.3	421.1		1,087.4	
	1987	672.6	446.5		1,119.1	
	1988	757.7	501.5	143.9	1,259.2	86.9
Import Traffic	1984	802.9	258.9		1,061.8	
	1985	753.6	218.6		972.2	
	1986	1,013.9	n/a		n/a	
	1987	783.3	n/a		n/a	
	1988	679.1	154.9	-15.4	834.0	-21.5
Total Traffic	1984	1,113.5	621.9		1,735.4	
	1985	1,021.9	571.3		1,593.2	
	1986	1,680.2	n/a		n/a	
	1987	1,455.9	n/a		n/a	
	1988	1,436.8	656.4	29.0	2,093.2	20.6

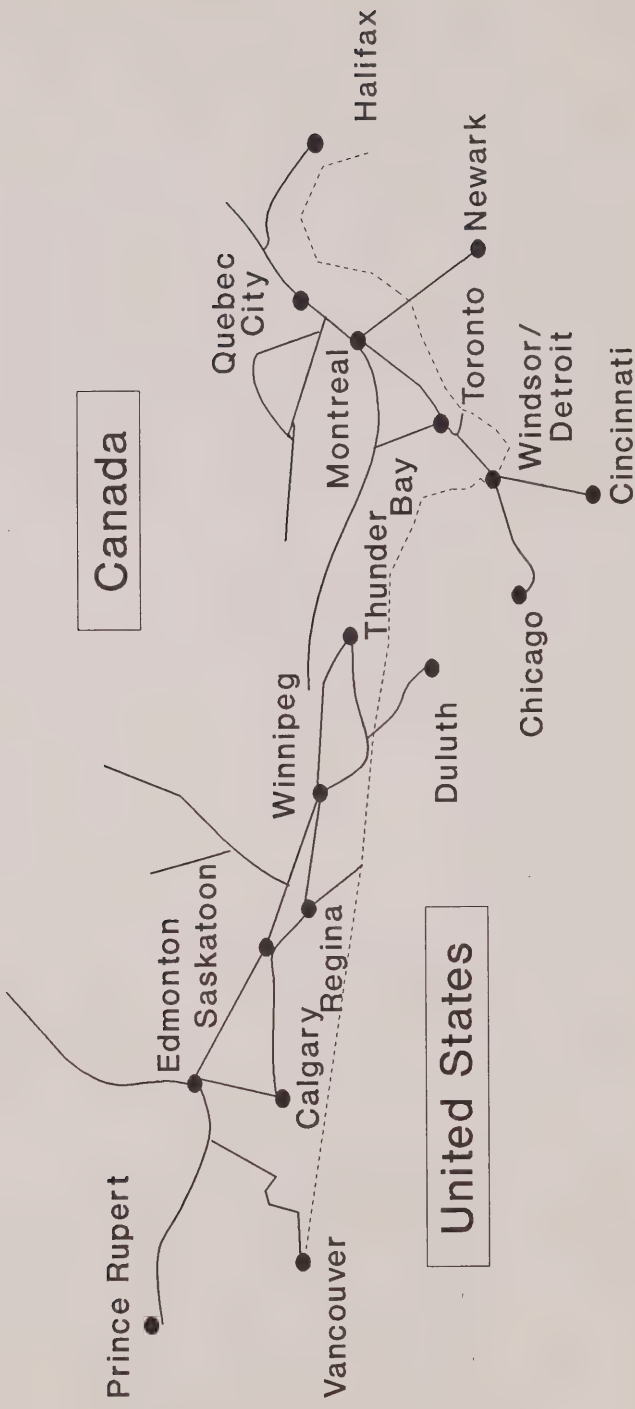
## CP Rail System



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Source: Agency statistics



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